modern casting

1971 Editorial Index

January-December, 1971

Volumes 59-60

New Technology—Market Opportunities—Management in Action—Technology for Progress—Operations for Profit—Plant Tours—International Technology. In 1971 over 120 individual authors communicated their know-how to the metalcasting industry in more than 437 pages of MODERN CASTING feature articles.



Published by American Foundrymen's Society Golf and Wolf Roads Des Plaines, III. 60016

Jan.-Dec. 1971 Volumes 59-60

A

AIR POLLUTION CONTROL

Air Pollution Control at Ford Specialty Foundry, Jan, p 96. Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner, July, p 52-53. Case History of Collection Equipment -C. R. Wiedemann, May, p, 104. Characteristics of Foundry Effluents -P. M. Giever, Jan, p 62. Cupola Collection Systems -P. S. Cowen, Jan, p 61. Cupola Emission Control in the Heart of Chicago - A. J. Wagner, Aug, p 58-59. Dust Collectors for Effluent Control -F. R. Culhane, Jan, p 60. Electrostatic Precipitator Does Outstanding Job - A. J. Wagner, March, p 74-76.

Outstanding Job - A. J. Wagner,
March, p. 74-76.
Ford's Michigan Casting Center . .
Progress Report No. 2 - J. H. Schaum,
March, p. 54-56.
Fumeless Decarburization for Steelcasting - H. T. Hall, Feb, p. 59.
New Lease on Life for Air Furnaces R. L. Bennett, Oct, p. 40-41.
Present Legal and Code Requirements R. J. Nye, April, p. 93.
Principles of Separation and Collection A. C. Stern, Jan, p. 59.
Protection Against Noxious Materials W. A. Cook, Feb, p. 65.
Refuse Packing Cuts Costs - Aids in Air
Pollution Control - R. W. Kaeli,

Oct, p 4k-45.

Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. - J. H. Greenberg, R.E. Conover, March, p 67-70.

Tax Aspects of Equipment Purchase and Use - D. A. Benner, March,

p 71. Wet Particulate Collectors of Effluent Control - J. M. Kane, Jan, p 63.

ALUMINUM

Aluminum Castings Rise Higher - C. X. Diamond, Jan, p 67.
Art Casting in the Forest - J. H. Schaum, Aug, p ½7-½9.
Foremen . . . Masters of the Production
Line - J. H. Schaum, Aug, p 50-53.
Hypereutectic Aluminum-Bilicon Alloy
Used to Cast the Vega Engine Block J. L. Jorstad, Oct, p 59-64.
Junior Achievement Group Operates a
Metalcasting Business - A. J. Wagner,
July, p 50-51.
Premium High Strength Aluminum Castings Robert Hise, Aug, p 62-63.

AMERICAN POUNDRYMEN'S ASSOCIATION

A Message From Your President C. A. Sanders, Jan, p 11.
American Foundrymen's Society 1896-1971, May, p 57-72.
Familiar Names Show Up Again in '71 AFS
Apprentice Contest, June, p 80-82.
AFS President James Outlines Challenges
to Chapter Group, Aug, p 75.
AFS Total Environmental Control
Conference Praised by Industry and
Agencies - A. J. Wagner, Feb, p 83.
TERI Environmental Control DecisionMaking Seminar, Nov, p 230.
TERI Trustees Name Paul R. Gouvens as
Institute Managing Director, Aug,
p 73.

AFS CASTING CONGRESS

AFS Marks 75th Anniversary, April, p 59. Gallery of Awards, April, p 76-77. Risering. . . Past, Present and Future R. W. Ruddle, April, p 78. AFS 75th Anniversary Combines Technical Operating Sessions, June, p 44-58. 75th Year - Official Costing Congress Program, April, p 60-67. Technology for Profit, April, p 68-74.

Birmingham Hosts Southeastern

AFS REGIONALS

Regional - A. J. Wagner, April, p 102.

AFS California Regional Themes Talks to
Action in the 70's - J. H. Schaum,
May, p 111.

First AFS Regional of Fall Season,
Nov, p 237.

Michigan Regional Conference Tackles
Control Problems - J. H. Schaum,
Jan, p 84.

New England Conference Puts Stress on
Production - G. A. Mott, Jan, p 83.

AFS Ninth Missouri Valley Regional Hits
Technical, Management Areas G. A. Mott, Nov, p 240.

AFS Northwest Regional Has 250 Despite
Two Handicaps - Roy Ledgerwood,
May, p 113.

Pollution Control Theme of AFS Onio
Regional - G. X. Diamond, Dec, p 51.

Thirteenth AFS Canadian Foundrymen's
Conference - G. X. Diamond, Nov, p 236.

AUTOMOTI VE

Ford's Michigan Casting Center . . .
Progress Report No. 2 - J. H. Schaum,
March, p 54-56.
Progress Report . . Expansion of
Central Foundry Division's Plant #2
at Defiance - A. J. Wagner, Jan,
p 48-50.
Expet Casting . . . With an English
Accent - J. H. Schaum, March, p 72-73.

E

BRASS, BRONZE & COPPER BASE

Art Casting in the Forest - J. H. Schaum, Aug, p 47.49. English Bells Ring Out - J. H. Schaum, Oct, p 46.47. High-Speed Gas-Fired Crucible Jet Melter L. J. Lazaridis, Sept, p 66.67.

BUYERS' DIRECTORY

Directolog 1972, Nov, p BD1-BD-130.

BUYING

Directolog 1972, Nov, p BD1-BD-130. How You Can . . . Add Value to Your Castings - G. X. Diamond, Nov, p 62-68.

C

CASTING

Economic Production of Shapes and Tubes in Gray and Alloyed Iron by Horizontal Continuous Casting - H.A. Krall, B.R. Douglas, Oct, p 65-70.
English Bells Ring Out - J. H. Schaum, Oct, p 46-47.
Hypereutectic Aluminum-Silicon Alloy Used to Cast the Vega Engine Block - J. L. Jorstad, Oct, p 59-64.
Mr. Metaleaster . . Do You Flan to be Around in 1980? - W. Finlay, P. Romanoff, M. Priaco, Dec, p 40-41.

CASTING DEFECTS

Use and Value of Iron Oxide - C. A. Sanders, March, p 61-63.

CASTINGS

All Zircon Shell Operation J. H. Schaum, May, p 99-101.
Aluminum Castings Rise Higher G. X. Diamond, Jan, p 67.
Art Casting in the Forest - J. H. Schaum,
Aug, p 17-19.
English Bells Ring Out - J. H. Schaum,
Oct, p 16-17.
How You Can . . Add Value to Your
Castings - G. X. Diamond, Nov, p 62-68.
Hypereutectic Aluminum-Silicon Alloy
Used to Cast the Vega Engine Block J. L. Jorstad, Oct, p 59-64.
Premium High Strength Aluminum Castings Robert Hise, Aug, p 62-63.
Quality and Service Bring Bright
Puture to a Small Metalcaster A. J. Wagner, Jan, p 54-55.
Tappet Casting . . . With an English
Accent - J. H. Schaum, March, p 72-73.
Valve Castings for Paper, Petroleum and
Flumbing - D. H. Reat, June, p 74.

CASTINGS, CONTINUOUS

Economic Production of Shapes and Tubes in Gray and Alloyed Iron by Horizontal Continuous Casting - H.A. Krall, B.R. Douglas, Oct, p 65-70.

CENTRIFUGAL CASTING

Mr. Metalcaster . . . Do You Plan to be Around in 1980 - W. Pinlay, P. Romanoff, M. Prisco, Dec, p 40-41.

CERAMIC MOLDING

Art Casting in the Forest - J. H. Schmum, Aug, p 47-49. New Continuous Mixer Produces Better Sand, Uses New Mixing Principle, Sept, p 87-88. 75 Years of Progress . . . in

Coremaking - E. L. Kotzin, June, p 60-73.

CLEANING & FINISHING

Abrasive Machining and Precision Machining Using Cut-Off Wheels -H. J. Kirsch, July, p 27-28. Air Tool Noise Reduction - P. A. Snider, Aug, p 32-34. Foundry Grinding: Guidelines for the Cleaning Room - D. J. Greenfield, May, p 43_44. Minimum Investment Pays Maximum Dividends for Newnam Foundry -Paul A. Whan, Feb, p 32-35. New Abrasive Wheel Safety Code -J. R. Gregor, Oct, p 35. New Material Handling Ideas Improve Cabinet Blast Efficiency -A. J. Wagner, June, p 36. Stand Grinding Developments in Great Britain - A. J. Wagner, April,

COP PROCESS

p 34-39.

75 Years of Progress . . in Coremaking - E. L. Kotzin, June, p 60-73.

COLD BOX PROCESS

75 Years of Progress . . . in Coremaking - E. L. Kotzin, June, p 60-73.

CONSULTANTS

Metalcasting of the Future . . circa 1980 - J. H. Schaum, July, 1971 Directory of Metalcasting and Foundry Consultants, July, p 54-63.

CORES & COREMAKING

75 Years of Progress . . . in Coremaking - E. L. Kotzin, June, p 60-73.

COSTS

Economic Production of Shapes and Tubes in Gray and Alloyed Iron by Horisontal Continuous Casting - H.A. Krall, B.R. Douglas, Oct, p 65-70. Evaluate Your Investments - Morris Horovitz, Aug, p 56-57.
High-Speed Gas-Fired Crucible Jet Melter -L. J. Lazaridis, Sept, p 66-67.

How You Can . . Add Value to Your Castings - G. X. Diamond, Nov, p 62-68.

New Source of Iron Challenges Scrap and Pig - G. X. Diamond, Merch, p 64-66.

Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J. H. Greenberg, R.E. Conover, March, p 67-70.

COVER STORIES

G. X. Diamond, Jan, p 67.
Art Casting in the Forest - J. H. Schaum,
Aug, p 17-19. Cast Steel Francis Runner, Feb, p 5. Cast Tooth Ring Gear by Evans Products Co., July, p 5. Electron Microscope Photo of Nodular Iron, Oct, p 5.
1980 Foundry a Reality Today J. M. Planten, Sept, p 52-53.
Small Foundry . . Leads Ductile Iron
Melting Technology - J. H. Schaum, March, p 57-60. Superalloy Remelt Ingot . . . New Product for Certified Alloy Products -J. H. Schaum, Dec, p 32-34. Valve Castings for Paper, Petroleum and Plumbing - D. H. Reat, June, p 74.

Aluminum Castings Rise Higher -

CUPOLA

Cupola Collection Systems -P. S. Cowen, Jan, p 61. Cupola Emission Control in the Heart of Chicago - A. J. Wagner, Aug, p 58-59. Does Your Cupola Shell Crack and Buckle? - R. A. Bauer, Oct, p 42-43. Electrostatic Precipitator Does Outstanding Job - A. J. Wagner, March, p 74-76. Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J. H. Greenberg, R.E. Conover, March, p 67-70.
75 Years of Progress . . . in Melting -S. C. Massari, May, p 77-80. Wet Particulate Collectors of Effluent Control - J. M. Kane, Jan, p 63.

D

DIE CASTING

Aluminum Castings Rise Higher -G. X. Diamond, Jan, p 67.
Hypereutectic Aluminum-Silicon Alloy Used to Cast the Vega Engine Block -J. L. Jorstad, Oct, p 59-64.

DUCTILE (NODULAR) IRON

March, p 57-60.

Material Handling Efficiency at Plainville Casting Co., Feb, p 60-61. Production of Ductile Iron with the Rheinstahl Stirrer - Norman Burr, May, p 93-95.
Progress Report . . Expansion of Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50. Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J. H. Greenberg, R.E. Conover, March, p 67-70. Sensible Mechanization Broadens Market for Canadian Metalcaster -A. J. Wagner, July, p 46-47. Small Foundry . . . Leads Ductile Iron

Melting Technology - J. H. Schaum,

EDUCATION & TRAINING

Junior Achievement Group Operates a Metalcasting Business - A. J. Wagner. July, p 50-51. Maintenance Training . Service, April, p 79-91. Techno-'71 - Part I, Dec, p 42-45. Train Before You Hire - J. H. Schaum, Sept, p 63.

ENVIRONMENTAL CONTROL

AFS Total Environmental Control Conference Praised by Industry and Agencies - A. J. Wagner, Feb, p 83. Assessing In-Plant Ventilation Requirements - L. G. Probst, Feb, p 64. Bright New Look - J. F. Garritsen, Oct, p 38-39. Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner, July, p 52-53. Clean, Cooler Air Increases Efficiency, Reduces Manhours, July, p 89-90. Instruments and Techniques of Sound Measurements - W. M. Ihde, April, p 95. Metalcasters Face the Environment -A. J. Iler, Dec, p 27. Nature of In-Plant Problems H. J. Weber, Feb, p 62. Physiological & Psychological Results of Environmental Stress in Foundry Operations - B. D. Dinman, April, p 94. Present Legal and Code Requirements R. J. Nye, April, p 93.

Progress Report . . Expansion of
Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50. Proper Illumination and Light -F. L. Lantz, Feb, p 63.
Protection Against Noxious Materials -W. A. Cook, Feb, p 65.
Refuse Packing Cuts Costs - Aids in Air
Pollution Control - R. W. Kaeli, Oct, p 44-45.
Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J. H. Greenberg, R. E. Conover, March, p 67-70. Sound Sources and Their Characteristics -R. W. Satterfield, April, p 92.

FROM THE EDITOR

Adding Value . . . Nov, p 61. 1896-1971 . . . 75 Years Progress . in Metalcasting, Feb, p 42. It's Men That Make the Difference, Sept, p 51.

Learn by Doing . . . June, p 43.

Maintenance Training, April, p 57.

Merry Christmas . . . Dec, p 31. 1971 - Year of Restrained Recovery, Jan, p 47.
Robots Are Coming, Aug, p 41.
That Silly Millimeter . . . No Longer March, p 53. Three Score and Fifteen Years Ago. May, p 55.
Total Casting Communication, Oct, p 37.
Who Needs It? We Do!, July, p 35. Get It Where It Is . . . April, p 9.

FUR AN BINDERS

75 Years of Progress . . . in Coremaking - E. L. Kotzin, June, p 60-73.

FIRNACES

Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner,
July, p 52-53.
Characteristics of Foundry Effluents P. M. Giever, Jan, p 62.
Dust Collectors for Effluent Control F. R. Culhane, Jan, p 60.
High-Speed Gas-Fired Crucible Jet Melter L. J. Lazaridis, Sept, p 66-67.
New Lease on Life for Air Furnaces R. L. Bennett, Oct, p 40-41.
Report on Systems Analysis of Emissions and Emissions Control in the Iron
Foundry Industry in the U.S.A. J. H. Greenberg, R.E. Conover,
March, p 67-70.
75 Years of Progress . . . in Melting S. C. Massari, May, p 77-80.

FURNACES, ARC

Ford's Michigan Casting Center . . . Progress Report № - J. H. Schaum, March, p 54-56. 75 Years of Progress . . . in Melting -S. C. Massari, May, p 77-80.

FURNACES, INDUCTION

75 Years of Progress . . . in Melting - S. C. Massari, May, p 77-80.

Small Foundry . . . Leads Ductile Iron Melting Technology - J. H. Schaum, March, p 57-60.

Tappet Casting . . . With an English Accent - J. H. Schaum, March, p 72-73.

C

GRAY IRON

All Zircon Shell Operation J. H. Schaum, May, p 99-101. American Seating's New Metalcasting Plant Reflects Careful Pre-Planning and Thorough Pre-Training -J. H. Schaum, Aug, p 42-46. Cupola Emission Control in the Heart of Chicago - A. J. Wagner, Aug, p 58-59. Economic Production of Shapes and Tubes in Gray and Alloyed Iron by Horizontal Continuous Casting - H.A. Krall, B.R. Douglas, Oct, p 65-70. Electrostatic Precipitator Does Outstanding Job - A. J. Wagner, March, p 74-76. Ford's Michigan Casting Center . . . Progress Report #2 - J. H. Schaum, March, p 54-56.
Material Handling Efficiency at
Plainville Casting Co., Peb, p 60-61.
Permanion of Progress Report . . Expansion of Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50.

GRAY IRON (Cont'd)

Quality and Service Bring Bright
Future to a Small Metalcaster A. J. Wagner, Jan, p 54-55.
Report on Systems Analysis of Emissions
and Emissions Control in the Iron
Foundry Industry in the U.S.A. J. H. Greenberg, R.E. Conover,
March, p 67-70.
Sensible Mechanization Broadens Market
for Canadian Metalcaster A. J. Wagner, July, p 46-47.
Tappet Casting . . . With an English
Accent - J. H. Schaum, March, p 72-73.
Two Different Types of Molding Systems
Supplied Directly from One Muller R. A. Alcala, R. E. Zayko, Aug,
p 60-61.

H

HIGH ALLOY CASTINGS

Superalloy Remelt Ingot . . . New Product for Certified Alloy Products -J. H. Schaum, Dec, p 32-34.

HOT BOX PROCESS

75 Years of Progress . . . in Coremaking - E. L. Kotzin, June, p 60-73.

ı

INTERNATIONAL FOUNDRY CONGRESSES

38th World Foundry Congress in Germany - J. H. Schaum, Dec, p 35-37.

K

KEEP IT CLEAN

Analyzing the Air Pollution Problems of the Metalcasting Industry - Peter Loquericio, May, p %1.

Canadian Cupola Emission Control - A. J. Wagner, Sept, p %3.b%. Experience with Cupola Control for Jobbing and Low Production Rate Gray Iron Foundries - B. D. Bloomfield, June, p %0.

Status Report of Cupola Emissions - J. Douglas James, March, p 30.40.

That "Old" Competitive Spirit - D. A. Jensen, April, p %3.

KEEP IT QUIET

Damping Materials for Control of Impact Noise = C. I. Holmer, R. Garner, Jr., Aug, p 68-69. Hearing Protection for Foundry Emplayees - Victor Sharpe, July, p 32.

KEEP IT SAFE

Hard Hats, Safety Glasses and Safety Shoes For All Plant Visitors -A. J. Wagner, Jan, p 42. Ross-Meehan Foundries Honored for Leadership in Air Pollution Control -A. J. Wagner, Nov, p 53-54.

M

MAGNESTUM

Premium High Strength Aluminum Castings - Robert Hise, Aug, p 62-63.

MAINTENANCE

As a Last Resort . . . Read the Instructions - K. P. Smith, Jan, p 58. Effective Maintenance Management - G. T. Hanna, Oct. p 55-58. Keeping it Clean is Getting Basier, Aug, p 85-86. Maintenance Training . . A Vendor Service, April, p 79-91.

MALLEABLE IRON

New Lease on Life for Air Furnaces R. L. Bennett, Oct, p 40-41.
1980 Foundry a Reality Today J. M. Planten, Sept, p 52-53.
Report on Systems Analysis of Emissions
and Emissions Control in the Iron
Foundry Industry in the U.S.A. J. H. Greenberg, R.E. Conover,
March, p 67-70.

AFS 75th Anniversary Combines Technical

MANAGEMENT

Operating Sessions, June, p 44-58.
American Seating's New Metalcasting Plant Reflects Careful Pre-Planning and Thorough Pre-Training -J. H. Schaum, Aug, p 42-46. As a Last Resort . . . Read the In-structions - K. P. Smith, Jan, p 58. Bodine Foundry Safety Program -Ray Hitt, Jan, p 56-57. Bright New Look - J. F. Garritsen, Oct, p 38-39. Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner, July, p 52-53. Case History of Collection Equipment -C. R. Wiedemann, May, p, 104. Cupola Emission Control in the Heart of Chicago - A. J. Wagner, Aug, p 58-59. Directolog 1972, Nov, p HD1-HD-130. Effective Maintenance Management -G. T. Hanna, Oct, p 55-58. Electrostatic Precipitator Does Outstanding Job - A. J. Wagner, March, p 74-76. Evaluate Your Investments - Morris Horowitz, Aug, p 56-57. Fifth World Census of Castings Production - 1970, Dec, p 38-39. Ford's Michigan Casting Center . . Progress Report #2 - J. H. Schaum, March, p 54-56. March, p 54-50.
Foremen . . Masters of the Production
Line - J. H. Schaum, Aug, p 50-53.
How You Can . . Add Value to Your
Castings - G. X. Diamond, Nov, p 62-68 Junior Achievement Group Operates a Metalcasting Business - A. J. Wagner, July, p 50-51.
Maintenance Training . . . A Vendor MODERN CASTING'S Trends Panel Forecasts Business Levels for the Year Ahead -A. J. Wagner, Jan, p 64-66. New Source of Iron Challenges Scrap and Pig - G. X. Diamond, March, p 64-66.

1971 Directory of Metalcasting and Foundry Consultants, July, p 54-63.
1980 Foundry a Reality Today J. M. Flanten, Sept, p 52-53.
Noise Control at Grede Foundries H. W. Ruf, Aug, p 64-67.
Plant Employees on Salary Proves
Effective in Reducing Absenteeism and Tardiness - A. J. Wagner, Sept, p 68-70.

Progress Report . . Expansion of Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50.

Quality and Service Bring Bright
Future to a Small Metalcaster A. J. Wagner, Jan, p 54-55.
Refuse Packing Cuts Costs - Aids in Air
Pollution Control - R. W. Kaeli,
Oct, p 44-45.

Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J.H. Greenberg, R.E. Conover, March, p 67-70.

J. H. Greenberg, R.E. Conover,
March, p 67-70.
75 Years Progress . . . in Materials
Handling - H. R. Patzer, Oct, p 48-54.
75 Years of Progress . . . in Molding R. F. Delton, Feb, p 43-47.
Tappet Casting . . . With an English
Accent - J. H. Schaum, March, p 72-73.
Tax Aspects of Equipment Purchase

Tax Aspects of Equipment Furchase and Use - D. A. Benner, March, p 71. Techno-'71 - Part I, Dec, p 42-45. 38th World Foundry Congress in Germany -J. H. Schaum, Dec, p 35-37. Train Before You Hire - J. H. Schaum,

MARKETING

Sept, p 63.

Fifth World Census of Castings Production - 1970, Dec, p 38-39. How You Can . . Add Value to Your Castings - G. X. Diamond, Nov, p 62-68. MODERN CASTING'S Trends Panel Forecasts Business Levels for the Year Ahead -A. J. Wagner, Jan, p 64-66.

MATERIALS HANDLING

American Seating's New Metalcasting
Plant Reflects Careful Pre-Planning
and Thorough Pre-Training J. H. Schaum, Aug, p 42-46.
How to Move Sticky Sand - G. Barnes,
E. Albrecht, Sept, p 64-65.
Material Handling Efficiency at
Flainville Casting Co., Feb, p 60-61.
Material Handling with Pneumatic Conveyors - L. E. Olson, Aug, p 54-55.
Mold Handling for Automatic Machines,
Oct, p 62-63.
75 Years Progress . . in Materials
Handling - H. R. Patzer, Oct, p 48-54.
Sturgis Foundry is First . . . to
Install New Concept in Automated
Mold Handling - J. H. Schaum, Jan,
p 51-53.

MECHANICAL & PHYSICAL PROPERTIES

Hypereutectic Aluminum-Silicon Alloy Used to Cast the Vega Engine Block -J. L. Jorstad, Oct, p 59-64. Premium High Strength Aluminum Castings -Robert Hise, Aug, p 62-63. American Seating's New Metalcasting
Plant Reflects Careful Pre-Planning
and Thorough Pre-Training
J. H. Schaum, Aug, p 42-46.
As a Last Resort . . . Read the Instructions - K. P. Smith, Jan, p 58.
Ford's Michigan Casting Center . .
Progress Report #2 - J. H. Schaum,
March, p 54-56.
Material Handling Efficiency at

Material Handling Efficiency at Plainville Casting Co., Feb, p 60-61. Material Handling with Pneumatic Conveyors - L. E. Olson, Aug, p 54-55. Molding - Bartlett-Snow . . . Feb, p 48.

Molding - Beardsley & Piper . . . Feb, p 49. Molding - EMM, Inc . . .

Feb, p 50.
Molding - Disamatic Inc. . .
Feb, p 51.
Molding - Harrison Machine Co. . . .

Feb, p 52.
Molding - Herman Pneumatic Machine Co.
. . . Feb, p 53.

Molding - Hunter Automated Machinery Corp. . . . Feb, p 54. Molding - International Molding Machine Co. . . Feb, p 55. Molding - Osborn Manufacturing Co. . . .

Feb, p 56.

Molding - Shalco . . . Feb, p 57.

Molding - SPO, Inc. . . . Feb, p 58.

New Disamatic 2032 Makes Larger, Better
Molds, Dec, p 60-61.

1980 Foundry a Reality Today -

J. M. Planten, Sept, p 52-53.
Noise Control at Grede Foundries H. W. Ruf, Aug, p 64-67.
Progress Report . . Expansion of
Central Foundry Division's Plant #2
at Defiance - A. J. Wagner. Jan.

at Defiance - A. J. Wagner, Jan, p 48-50. Sensible Mechanization Broadens Market for Canadian Metaleaster -A. J. Wagner, July p 16, 17

for Canadian Metalcaster A. J. Wagner, July, p 46-47.
75 Years Progress . . . in Materials
Handling - H. R. Patzer, Oct, p 48-54.
75 Years of Progress . . . in Molding R. F. Delton, Peb, p 43-47.
Small Foundry . . . Leads Ductile Iron
Melting Technology - J. H. Schaum,

March, p 57-60. Sturgis Foundry is First . . . to Install New Concept in Automated Mold Handling - J. H. Schaum, Jan,

p 51-53.
Tappet Casting . . . With an English
Accent - J. H. Schaum, March, p 72-73.
Two Different Types of Molding Systems
Supplied Directly from One Muller R. A. Alcala, R. E. Zayko, Aug,
p 60-61.

MELTING PRACTICES

American Seating's New Metalcasting
Plant Reflects Careful Pre-Planning
and Thorough Pre-Training
J. H. Schaum, Aug, p 42-46.

Does Your Cupola Shell Crack and
Buckle? - R. A. Bauer, Oct, p 42-43.

Pumeless Decarburization for Steelcasting - H. T. Hall, Feb, p 59.

High-Speed Gas-Fired Crucible Jet Melter L. J. Lazaridis, Sept, p 66-67.

Melting - Ajax Magnethermic Corp. . .

May, p 81.

Melting - American Bridge Div. . .

May, p 82.

Melting - Brown Boveri . .

May, p 83.

Melting - Detroit Electric Furnace Co.
. . . May, p 84.

Melting - Inductotherm Corp. . .

May, p 85.

Melting - Lectromelt Corp. . . . May, p 86. Melting - Lindberg Hevi-Duty . . . May, p 87. Melting - Modern Equipment Co. . . . May, p 88. Melting - Swindell-Dressler Co. . . . May, p 89. Melting - United McGill Corp. . . . May, p 90. Melting - U.S. Smelting Furnace Co. . . . May, p 91. Melting - Whiting Corp. . . . May, p 92. New Foundry Alloy Contributes to Melting Flexibility and Quality - A. J. Wagner, April, p 115-116. New Lease on Life for Air Furnaces -R. L. Bennett, Oct, p 40-41. New Source of Iron Challenges Scrap and Pig - G. X. Diamond, March, p 64-66. Production of Ductile Iron with the Rheinstahl Stirrer - Norman Burr, May, p 93-95. Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J. H. Greenberg, R.E. Conover, March, p 67-70. 75 Years of Progress . . . in Melting - S. C. Massari, May, p 77-80.

Small Foundry . . Leads Ductile Iron Melting Technology - J. H. Schaum, March, p 57-60. Superalloy Remelt Ingot . . . New Product for Certified Alloy Products -

METALLURGY

Economic Production of Shapes and Tubes in Gray and Alloyed Iron by Horizontal Continuous Casting - H.A. Krall, B.R. Douglas, Oct, p 65-70.

Hypereutectic Aluminum-Silicon Alloy Used to Cast the Vega Engine Block - J. L. Jorstad, Oct, p 59-64.

New Source of Iron Challenges Scrap and Pig - G. X. Diamond, March, p 64-66.

Production of Ductile Iron with the Rheinstahl Stirrer - Norman Burr, May, p 93-95.

Small Foundry . . . Leads Ductile Iron Melting Technology - J. H. Schaum, March, p 57-60.

Superalloy Remelt Ingot . . . New Product for Certified Alloy Products - J. H. Schaum, Dec, p 32-34.

J. H. Schaum, Dec, p 32-34.
Tappet Casting . . With an English
Accent - J. H. Schaum, March, p 72-73

MODERN CASTING SEMINARS

Metalcasting of the Future . . . circa 1980 - J. H. Schaum, July, p 48-49.

MOLD MATERIALS

Mr. Metalcaster . . . Do You Plan to be Around in 1980? - W. Finlay, P. Romanoff, M. Prisco, Dec, p 40-41. Use and Value of Iron Oxide -C. A. Sandere, March, p 61-63. Art Casting in the Forest - J. H. Schaum. Aug, p 47-49.

Familiar Names Show Up Again in '71 AFS Apprentice Contest, June, p 80-82. Mold Handling for Automatic Machines, Oct, p 82-83.

Molding - Bartlett-Snow . . . Feb, p 48.

Molding - Beardsley & Piper . . . Feb, p 49.

Molding - BMM, Inc . . . Feb, p 50. Molding - Disametic Inc. . . .

Feb, p 51. Molding - Harrison Machine Co. . . .

Feb, p 52.

Molding - Herman Pneumatic Machine Co. . . . Feb, p 53. Molding - Hunter Automated Machinery

Corp. . . . Feb, p 54.
Molding - International Molding Machine Co. . . Feb, p 55.
Molding - Osborn Manufacturing Co. . . .

Feb, p 56.

Molding - Shalco . . . Feb, p 57.
Molding - SPO, Inc. . . . Feb, p 58.
New Disamatic 2032 Makes Larger, Better

Molds, Dec, p 60-61. Quality and Service Bring Bright Future to a Small Metalcaster -** J. Wagner, Jan, p 54-55.

**tears of Progress . . in Molding R. F. Dalton, Feb, p 43-47. mall Foundry . . . Leads Ductile Iron Melting Technology - J. H. Schaum,

March, p 57-60. Sturgis Foundry is First . . . to Install New Concept in Automated Mold Handling - J. H. Schaum, Jan,

p 51-53. Tappet Casting . . . With an English Accent - J. H. Schaum, March, p 72-73. Two Different Types of Molding Systems Supplied Directly from One Muller -A. Alcala, R. E. Zayko, Aug,

MOLDS

p 60-61.

Molding - Bartlett-Snow . . . Feb, p 48. Molding - Beardsley & Piper . . . Feb, p 49. Molding - HMM, Inc . . . Feb, p 50. Molding - Disamatic Inc. . . . Feb, p 51. Molding - Harrison Machine Co. . . . Feb, p 52. Molding - Herman Pneumatic Machine Co. . Feb, p 53. Molding - Hunter Automated Machinery Corp. . . . Feb, p 54. Molding - International Molding Machine Co. . . Feb, p 55.
Molding - Osborn Manufacturing Co. . . .

Feb, p 56: Molding - Shalco . . . Feb, p 57. Modding - SPO, Inc. . . Feb, p 58.

Mr. Metalcaster . . Do You Plan to be
Around in 1980? - W. Finlay,
F. Romanoff, M. Prisco, Dec, p 40-41.

75 Years of Progress . . in Molding -75 Years of Progress . . . in R. F. Dalton, Feb, p 43-47.

MORE ABOUT ENVIRONMENT

Name of the Game: Leadership, W. B. Huelsen, Nov, p 59.

NOTES CONTROL

Instruments and Techniques of Sound Measurements - W. M. Ihde, April, p 95. Noise Control at Grede Foundries -H. W. Ruf, Aug, p 64-67. Progress Report . . . Expansion of Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50. Sound Sources and Their Characteristics -R. W. Satterfield, April, p 92.

NONDESTRUCTIVE TESTING

Eddy Current Testing at Grede's Wichita-Midwest Div., May, p 123. 7.5 Million Volt Linear Accelerator X-Ray at Canadian Steel Foundries -W. A. Matheson, W.A. Laurin, May, p 96-98.

PATTERNS & PATTERNMAKING

Extended Pattern Life Obtained with Electroless Nickel Plating, June, p 91-92. Femiliar Names Show Up Again in '71 AFS Apprentice Contest, June, p 80-82.

PERMANENT MOLD CASTING

Mr. Metalcaster . . . Do You Plan to be Around in 1980? - W. Finlay, P. Romanoff, M. Prisco, Dec, p 40-41.

PLANT DESCRIPTION

All Zircon Shell Operation -J. H. Schaum, May, p 99-101. American Seating's New Metalcasting Plant Reflects Careful Pre-Planning and Thorough Pre-Training -J. H. Schaum, Aug, p 42-46. Art Casting in the Forest - J. H. Schaum, Aug, p 47-49. Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner, July, p 52-53. Electrostatic Precipitator Does Outstanding Job - A. J. Wagner, March, p 74-76. English Bells Ring Out - J. H. Schaum, Oct, p 46-47. Ford's Michigan Casting Center . . Progress Report #2 - J. H. Schaum, March, p 54-56. Foremen . . . Masters of the Production Line - J. H. Schaum, Aug, p 50-53. Material Handling Efficiency at Plainville Casting Co., Feb, p 60-61. 1980 Foundry a Reality Today -J. M. Planten, Sept, p 52-53.
Progress Report . . Expansion of Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50. Quality and Service Bring Bright Future to a Small Metalcaster -A. J. Wagner, Jan, p 54-55. Sensible Mechanization Broadens Market for Canadian Metalcaster -A. J. Wagner, July, p 46-47. Small Foundry . . . Leads Ductile Iron

Melting Technology - J. H. Schaum, March, p 57-60. Tappet Casting . . . With an English Accent - J. H. Schaum, March, p 72-73.

Metallics Molten Metal Filter Clears the Way Toward Better Nonferrous Metals, Nov, p 249-250.

PRODUCT OF THE MONTH

Air Pollution Control at Ford Specialty Foundry, Jan, p 96. Clean, Cooler Air Increases Efficiency, Reduces Manhours, July, p 89-90. Eddy Current Testing at Grede's Wichita-Midwest Div., May, p 123. Extended Pattern Life Obtained with Electroless Nickel Plating, June, Keeping it Clean is Getting Easier, Aug, p 85-86. Metallics Molten Metal Filter Clears the Way Toward Better Nonferrous Metals, Nov, p 249-250.
Mold Handling for Automatic Machines, Oct, p 82-83. New Continuous Mixer Produces Better Sand, Uses New Mixing Principle, Sept, p 87-88. New Disamatic 2032 Makes Larger, Better Molds, Dec, p 60-61. New Foundry Alloy Contributes to Melting Flexibility and Quality, April, p 115-116. Riser Sleeves Solve a Tough Problem. Feb. p 95-96. Sand System Revision Generates Handsome Savings, March, p 99-100.

PHILSE OF PROGRESS

Five Days in May - M. T. Rowley, April, p 41. Footprints in the Sand - M. T. Rowley, Jan, p 74. "Rather Fight Than Switch?" -P. R. Gouwens, Feb, p 66. Research in This Decade - G. X. Diamond, Aug, p 36.

QUALITY CONTROL

Foremen . . . Masters of the Production Line - J. H. Schaum, Aug, p 50-53. Use and Value of Iron Oxide -C. A. Sanders, March, p 61-63.

RADIOGRAPHS & RADIOGRAPHY

7.5 Million Volt Linear Accelerator X-Ray at Canadian Steel Foundries -W. A. Matheson, W.A. Laurin, May, p 96-98.

READER FORUM

"Adding Value", Nov, p 42.
Critics Storm U.S. Policy . . . Senior
Metalcasters Defend It, Feb, p 38-40.

SAFETY

Rodine Foundry Safety Program -Ray Hitt, Jan, p 56-57. Hard Hats, Safety Glasses and Safety Shoes For All Plant Visitors -A. J. Wagner, Jan, p 42.

SALES & SELLING

How You Can . . . Add Value to Your Castings - G. X. Diamond, Nov, p 62-68. MODERN CASTING'S Trends Panel Forecasts Business Levels for the Year Ahead -A. J. Wagner, Jan, p 64-66. Premium High Strength Aluminum Castings -Robert Hise, Aug, p 62-63.

SAND ADDITIVES & HINDERS

75 Years of Progress . . . in Coremaking - E. L. Kotzin, June, p 60-73. 75 Years Progress . . . in Foundry Sands and Additives - E. E. Woodliff, Sept, p 57-62. Use and Value of Iron Oxide -C. A. Sanders, March, p 61-63.

SAND CONDITIONING

How to Move Sticky Sand - G. Barnes, E. Albrecht, Sept, p 64-65. New Continuous Mixer Produces Better Sand, Uses New Mixing Principle, Sept, p 87-88. Sand System Revision Generates Handsome Sand System Revision Generates Handsom Savings, March, p 99-100. Two Different Types of Molding Systems Supplied Directly from One Muller -R. A. Alcala, R. E. Zayko, Aug, p 60-61.

SAND PROPERTIES

75 Years Progress . . . in Foundry Sands and Additives - E. E. Woodliff, Sept, p 57-62. Use and Value of Iron Oxide C. A. Sanders, March, p 61-63.

SAND TESTING

Sand Testing Progress - H. W. Dietert, July, p k3-kk. Sand Testing - D. C. Williams, July, p 37-42. in Foundry 75 Years Progress 75 Years Progress . . . in Foundry Sands and Additives - E. E. Woodliff, Sept, p 57-62.

SHAKEOUT

Sturgis Foundry is First . . . to Install New Concept in Automated Mold Handling - J. H. Schmum, Jan, p 51-53.

SHELL CORES

All Zircon Shell Operation -J. H. Schaum, May, p 99-101. 75 Years of Progress . . . in Coremaking - E. L. Kotzin, June, n 60-73

SHELL MOLDS

All Zircon Shell Operation J. H. Schaum, May, p 99-101.

SOLVING PROPLE PROBLEMS

Better Hiring Practices Can Help -Don Miller, April, p 45. Changing Role of the Foreman in the Foundry - E. A. Mesics, Jan, p 34-36. Four Day Week - A. J. Wagner, Oct, p 31. Manpower . . . Hiring and Retention -F. P. Schleg, March, p 43-44. Objective: Performance - Warren Lewars, Sept, p 46. Upgrade Teaching - J. D. Marah, Aug, p 39. Why Get Involved in Another Project? -Thomas Hewitt, June, p 38.

SPEAKING OUT

Don't Change a Damn Thing -

Don't change a Lemm Hing -C. E. Quaife, Feb, p 36. Farewell to Arms, Auf Wiedersehen, Au Revoir, Arrivederci - H. J. Weber, June, p 34. Mileage From Your Training Dollar -R. E. Betterley, Oct, p 32. More Red Tape for Foundry Managers -J. S. Shockley, Jr., Sept, p 41. New Industrial Burner Gasifies Fuel Oil - H. J. Weber, Jan, p 38. Now is the Hour - R. E. Betterley, Aug, p 31. On Maintenance . . Think Preventive -R. E. Betterley, May, p 48. Selling the Metalcasting Industry -R. E. Betterley, April, p 46. Tremendous Trifles - R. E. Betterley, Dec, p 29 What is Air Pollution? - H. J. Weber, March, p 46.

STREL

Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner, July, p 52-53. Funeless Decarburization for Steelcasting - H. T. Hall, Feb, p 59. How to Move Sticky Sand - G. Barnes, E. Albrecht, Sept, p 64-65. Material Handling with Pneumatic Conveyors - L. E. Olson, Aug, p 54-55. 7.5 Million Volt Linear Accelerator X-Ray at Canadian Steel Foundries -W. A. Matheson, W.A. Laurin, May, p 96-98. Valve Castings for Paper, Petroleum and Plumbing - D. H. Reat, June, p 74.

т

TECHNO '70

Techno - '70 (Part 2), Jan, p 68-73. Techno - '70 (Part 3), Feb, p 72-75.

TECHNO '71

Techno - '71 (Part 1), Dec, p 42-45.

TRADE ASSOCIATIONS

Balanced Schedule of Work and Fun Highlights GDIFS 43rd Annual Meeting -A. J. Wagner, Dec, p 22. DIS Meets in Williamsburg, Va. -J. H. Schaum, Dec, p 21. Ductile Iron Producers Look at Challenges Facing Them . . . Marketing & Operating -G. Mott, Aug, p 24. Experts Tell Nonferrous Foundrymen Solutions to Some of Their Problems - G. A. Mott, Nov, p 34-35. FEMA Has Good Year - J. H. Schaum, Jan, p 27.
MFS Medal to Braun, July, p 21.
National Castings Council News, Feb, p 22-26. SFSA Conducts Annual Fall Meeting at Williamsburg, Va. - A. J. Wagner, Dec, p 20.
Twenty-fifth Annual SFSA-T&O Conference - J. H. Schaum, Jan, p 25-26.

TRENDS PANEL REPORTS

MODERN CASTING'S Trends Panel Forecasts Business Levels for the Year Ahead -A. J. Wagner, Jan, p 64-66.

EXACT TITLES OF FEATURE ARTICLES

Aug, p 32-34. Aircraft Castings in the '70's -A. J. Iler, May, p 52. All Zircon Shell Operation J. H. Schaum, May, p 99-101. Aluminum Castings Rise Higher -G. X. Diamond, Jan, p 67.

AFS 75th Anniversary Combines Technical Operating Sessions, June, p 44-58.
AFS Total Environmental Control Conference Praised by Industry and Agencies - A. J. Wagner, Feb, p 83. American Seating's New Metalcasting Plant Reflects Careful Pre-Planning and Thorough Pre-Training -J. H. Schmum, Aug, p 42-46. Analyzing the Air Pollution Problems of the Metalcasting Industry - Peter the Metalcasting Industry - Peter Loquericio, May, p 41. Art Casting in the Forest - J. H. Schaum, Aug, p 47-49. As a Last Resort . . . Read the In-structions - K. P. Smith, Jan, p 58. Assessing In-Plant Ventilation Require-ments - L. G. Probst, Feb, p 64.

Air Tool Noise Reduction - P. A. Snider,

Bodine Foundry Safety Program -Ray Hitt, Jan, p 56-57. Bright New Look - J. F. Garritsen, Oct, p 38-39. Bucyrus-Erie's Continuing Plant Improvement Program - A. J. Wagner, July, p 52-53.

Case History of Collection Equipment -C. R. Wiedemann, May, p, 104. Changing Role of the Foreman in the Foundry - E. A. Mesics, Jan, p 34-36. Characteristics of Foundry Effluents -

P. M. Glever, Jan, p 62. Critics Storm U.S. Policy . . . Senior Metalcasters Defend It, Feb, p 38-40. Cupola Collection Systems -

P. S. Cowen, Jan, p 61. Cupola Emission Control in the Heart of Chicago - A. J. Wagner, Aug, p 58-59.

Directolog 1972, Nov, p BD1-BD-130. Does Your Cupola Shell Crack and Buckle? - R. A. Bmuer, Oct, p 42-43. Dust Collectors for Efflyent Control -F. R. Culhane, Jan, p 6J.

Economic Production of Shapes and Tubes in Gray and Alloyed Iron by Horizontal Continuous Casting - H.A. Krall, B.R. Douglas, Oct, p 65-70. Effective Maintenance Management -G. T. Hanna, Oct, p 55-58. Electrostatic Precipitator Does Outstanding Job - A. J. Wagner, March, p 74-76. English Bells Ring Out - J. H. Schaum, Oct, p 46-47. Evaluate Your Investments - Morris Horowitz, Aug, p 56-57.

Fifth World Census of Castings Production - 1970, Dec, p 38-39. Ford's Michigan Casting Center . . . Progress Report #2 - J. H. Schaum, March, p 54-56. Foremen . . . Masters of the Production Line - J. H. Schaum, Aug, p 50-53. Foundry Grinding: Guidelines for the Cleaning Room - D. J. Greenfield, May, p 43_44. Fumeless Decarburization for Steelcasting - H. T. Hall, Feb, p 59.

High-Speed Gas-Fired Crucible Jet Melter . L. J. Lazaridis, Sept, p 66-67.

How to Move Sticky Sand - G. Barnes,
E. Albrecht, Sept, p 64-65.

How You Can . . . Add Walue to Your
Castings - G. X. Diamond, Nov, p 62-68.

Hypereutectic Aluminum-Silicon Alloy
Used to Cast the Vega Engine Block J. L. Jorstad, Oct, p 59-64.

Instruments and Techniques of Sound Measurements - W. M. Ihde, April, p 95.

Junior Achievement Group Operates a Metalcasting Business - A. J. Wagner, July, p 50-51.

Maintenance Training . . . A Vendor Service, April, p 79-91. Manpower . . . Hiring and Retention - F. P. Schleg, March, p 43-44. Material Handling Efficiency at Plainville Casting Co., Feb, p 60-61. Material Handling with Pneumatic Conveyors - L. E. Olson, Aug, p 54-55. Melting - Ajax Magnethermic Corp. . . . May, p 81. Melting - American Bridge Div. . . . May, p 82. Melting - Brown Boveri . . . May, p 83. Melting - Detroit Electric Furnace Co. . . May, p 84. Melting - Inductotherm Corp. . . . May, p 85. Melting - Lectromelt Corp. . . . May, p 86. Melting - Lindberg Hevi-Duty . . . May, p 87. Melting - Modern Equipment Co. . . . May, p 88. Melting - Swindell-Dressler Co. . . . May, p 89. Melting - United McGill Corp. . . . May, p 90. Melting - U.S. Smelting Purnace Co. . . . May, p 91. Melting - Whiting Corp. . . . May, p 92. Metalcasters Face the Environment -A. J. Iler, Dec, p 27. Metalcasting of the Future . . . circa 1980 - J. H. Schaum, July. p 48-49. Minimum Investment Pays Maximum Dividends for Newmam Foundry -Paul A. Whan, Feb, p 32-35. MODERN CASTING'S Trends Panel Forecasts Business Levels for the Year Ahead -A. J. Wagner, Jan, p 64-66. Molding - Bartlett-Snow . . . Feb, p 48. Molding - Beardsley & Piper . . . Feb, p 49. Molding - HMM, Inc . . . Feb, p 50. Molding - Disamatic Inc. . . . Feb, p 51. Molding - Harrison Machine Co. . . . Feb, p 52. Molding - Herman Pneumatic Machine Co. . . . Feb, p 53. Molding - Hunter Automated Machinery Corp. . . . Feb, p 54.
Molding - International Molding Machine Co. . . Feb, p 55.
Molding - Osborn Manufacturing Co. . . .

Nature of In-Plant Problems -H. J. Weber, Feb, p 62.

New Lease on Life for Air Furnaces R. L. Bennett, Oct, p 40-41.

New Source of Iron Challenges Scrap and Pig - G. X. Diamond, March, p 64-66. 1971 Directory of Metalcasting and Foundry Consultants, July, p 54-63. 1980 Foundry a Reality Today -J. M. Planten, Sept, p 52-53. Noise Control at Grede Foundries -

H. W. Ruf, Aug, p 64-67.

Feb, p 56.

Molding - Shalco . . . Feb, p 57.

Molding - SPO, Inc. . . . Feb, p 58.

Mr. Metalcaster . . . Do You Plan to be

Around in 1980? - W. Finlay,

P. Romanoff, M. Prisco, Dec, p 40-41.

Feb, p 56.

Objective: Performance - Warren Lewars, Sept, p 46.

Physiological & Psychological Results of Environmental Stress in Foundry Operations - B. D. Dinman, April. Plant Employees on Salary Proves Effective in Reducing Absenteeism and

Tardiness - A. J. Wagner, Sept, p 68-70.

Premium High Strength Aluminum Castings -Robert Hise, Aug, p 62-63.

Present Legal and Code Requirements -

R. J. Nye, April, p 93.
Production of Ductile Iron with the Rheinstahl Stirrer - Norman Burr, May, p 93-95.

Progress Report . . . Expansion of Central Foundry Division's Plant #2 at Defiance - A. J. Wagner, Jan, p 48-50.

Proper Illumination and Light -F. L. Lantz, Feb, p 63.
Protection Against Noxious Materials -W. A. Cook, Feb, p 65.

Quality and Service Bring Bright Future to a Small Metalcaster - A. J. Wagner, Jan, p 54-55.

Refuse Packing Cuts Costs - Aids in Air Pollution Control - R. W. Kaeli, Oct, p 44-45. Report on Systems Analysis of Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A. -J. H. Greenberg, R.E. Conover, March, p 67-70.

Sand Testing Progress - H. W. Dietert, July, p 43-44. Sensible Mechanization Broadens Market for Canadian Metalcaster A. J. Wagner, July, p 46-47.
7.5 Million Volt Linear Accelerator
X-Ray at Canadian Steel Foundries -W. A. Matheson, W.A. Laurin, May, p 96-98. 75 Years of Progress . Coremaking - E. L. Kotzin, June, p 60-73. . in Foundry

Years Progress . . . in Founds Sand Testing - D. C. Williams, July, p 37-42.

75 Years Progress . . . in Foundry Sands and Additives - E. E. Woodliff, Sept, p 57-62.

75 Years Progress . . . in Materials Handling - H. R. Patzer, Oct, p 48-54. 75 Years of Progress . . . in Melting -S. C. Massari, May, p 77-80.

75 Years of Progress . . . in Molding - R. F. Dalton, Feb, p 43-47.
Small Foundry . . . Leads Ductile Iron Melting Technology - J. H. Schaum, March, p 57-60. Sound Sources and Their Characteristics -

R. W. Satterfield, April, p 92. Status Report of Cupola Emissions J. Douglas James, March, p 39-40. Sturgis Foundry is First . . . to Install New Concept in Automated Mold Handling - J. H. Schaum, Jan, p 51-53.

Superalloy Remelt Ingot . . . New Product for Certified Alloy Products -J. H. Schaum, Dec, p 32-34.

Dappet Casting . . . With an English Accent - J. H. Schaum, March, p 72-73.

Tax Aspects of Equipment Purchase and Use - D. A. Benner, March, p 71.

Techno-'71 - Part I, Dec, p 42-45.

Techno-'70 (Part 2), Jan, p 68-73.

Techno - '70 (Part 3), Feb, p 72-75.

38th World Foundry Congress in Germany - J. H. Schaum, Dec, p 35-37.

Train Before You Hire - J. H. Schaum, Sept, p 63.

Two Different Types of Molding Systems Supplied Directly from One Mullef - R. A. Alcals, R. E. Zayko, Aug, p 60-61.

Upgrade Teaching - J. D. Marsh, Aug, p 39. Use and Value of Iron Oxide -C. A. Sanders, March, p 61-63.

Valve Castings for Paper, Petroleum and Plumbing - D. H. Reat, June, p 74.

Wet Particulate Collectors of Effluent Control - J. M. Kane, Jan, p 63.

AUTHORS

A

Albrecht, E., Barnes, G. - How to Move Sticky Sand, Sept, p 64-65. Alcala, R. A., Zayko, R. E. - Two Different Types of Molding Systems Supplied Directly From One Muller, Aug, p 60-61.

B

Barnes, G., Albrecht, E. - How to Move Sticky Sand, Sept, p 64-65.
Bauer, R. A. - Does Your Cupola Shell Crack and Bucklef, Oct, p 42-43.
Benner, D. A. - Tax Aspects of Equipment Purchase and Use, March, p 71.
Bennett, R. L. - New Lease on Life for Air Furnaces, Oct, p 40-41.
Betterley, R. E. - Mileage From Your Training Dollar, Oct, p 32.
Betterley, R. E. - Tremendous Trifles, Dec, p 29.
Burr, Narman - Production of Ductile Iron with the Rheinstahl Stirrer, May, p 93-95.

C

Conover, R.E., Greenberg, J.H. Report on Systems Analysis of
Emissions and Emissions Control in the
Iron Foundry Industry in the U.S.A.,
March, p 67-70.
Cook, W. A. - Protection Against
Noxious Materials, Feb, p 65.
Cowen, P. S. - Cupola Collection
Systems, Jan, p 61.
Culhane, F. R. - Dust Collectors for

Effluent Control, Jan, p 60.

D

Dalton, R. F. - 75 Years of Progress . . . in Molding, Feb, p 43-47. Diamond, G. X. - Aluminum Castings Rise Higher, Jan, p 67. Diamond, G. X. - How You Can . . . Ad Value to Your Castings, Nov. p 62-6

Value to Your Castings, Nov, p 62-68. Diamond, G. X. - New Source of Iron Challenges Scrap and Pig, March, p 64-66.

Dietert, H. W. - Sand Testing Progress, July, p 43-44. Dinman, B. D. - Physiological & Psychological Results of Environments

Psychological Results of Environmental Stress in Foundry Operations, April, p 94.

F

Finlay, W., Romanoff, P., Prisco, M. -Mr. Metalcaster . . . Do You Plan to be Around in 1980?, Dec, p 40-41.

G

Garner, R., Jr., Holmer, C.I. - Damping Materials for Control of Impact Noise, Aug, p 68-69. Garritsen, J. F. - Bright New Look, Oct, p 38-39.

Oct, p 38-39.
Giever, P. M. - Characteristics of
Foundry Effluents, Jan, p 62.
Greenberg, J.H., Conover, R. E. Report on Systems Analysis of

Emissions and Emissions Control in the Iron Foundry Industry in the U.S.A., March, p 67-70. Greenfield, D. J. - Foundry Grinding:

Guidelines for the Cleaning Room, May, p & 3-44. Gregor, J. R. - New Abrasive Wheel Safety Code, Oct, p 35.

H

Hall, H. T. - Fumeless Decarburization for Steelcasting, Feb, p 59. Hanna, G. T. - Effective Maintenance Management, Oct, p 55-56. Hise, Robert - Premium High Strength Aluminum Castings, Aug, p 62-63. Hitt, Ray - Bodine Foundry Safety Program, Jan, p 56-57. Holmer, C.I., Garner, R., Jr. - Damping Materials for Control of Impace Noise, Aug, p 68-69.

Horowitz, Morris - Evaluate Your Investments, Aug, p 56-57.
Huelsen, W. B. - The Name of the Game:
Leadership, Nov, p 59.

1

Inde, W. M. - Instruments and Techniques of Sound Measurements, April, p 95. Iler, A. J. - Aircraft Castings in the 70's, May, p 52. Iler, A. J. - Metalcasters Face the Environment, Dec, p 27.

4

James, J. Douglas - Status Report of Cupola Emissions, March, p 39-40. Jorstad, J. L. - The Hypereutectic Aluminum-Silicon Alloy Used to Cast the Vega Engine Block, Oct, p 59-64.

K

Kaeli, R. W. - Refuse Packing Cuts
Costs - Aids in Air Pollution
Control, Oct, p 44-45.
Kane, J. M. - Wet Particulate Collectors
of Effluent Control, Jan, p 63.
Kirsch, H. J. - Abrasive Machining and
Precision Machining Using Cut-Off
Wheels, July, p 27-28.
Kotzin, E. L. - 75 Years of Progress
. . in Coremaking, June, p 60-73.

L

Lantz, F. L. - Proper Illumination and Light, Feb, p 63. Laurin, W.A., Matheson, W.A. - 7.5 Million Volt Linear Accelerator X-Ray at Canadian Steel Foundries, May, p 96-98. Lazaridis, L. J. - High-Speed Gas-Fired Crucible Jet Melter, Sept, p 66-67. Lewars, Warren - Objective: Performance, Sept, p 46. Loquericio, Peter - Analyzing the Air Pollution Problems of the Metalcasting Industry, May, p 41.

M

Marsh, J. D. - Upgrade Teaching, Aug, p 39. Massari, S. C. - 75 Years of Progress . . . in Melting, May, p 77-80. Matheson, W.A., Laurin, W.A. - 7.5 Million Volt Linear Accelerator X-Ray at Canadian Steel Foundries, May, p 96-98. Mesics, E. A. - The Changing Role of the Foreman in the Foundry, Jan, p 34-36.

N

Nye, R. J. - Present Legal and Code Requirements, April, p 93.

О

Olson, L. E. - Material Handling with Pneumatic Conveyors, Aug, p 54-55.

D

Patzer, H. R. - 75 Years Progress . . . in Materials Handling, Oct, p 48-54. Planten, J. M. - 1980 Foundry a Reality Today, Sept, p 52-56.

Prisco, M., Finlay, W., Romanoff, P. -Mr. Metalcaster . . . Do You Plan to be Around in 1980?, Dec, p 40-41. Probst, L. G. - Assessing In-Plant Ventilation Requirements, Feb, p 64.

R

Reat, D. H. - Valve Castings for Paper, Petroleum and Plumbing, June, p 74. Romanoff, P., Prisco, M., Finlay, W. -Mr. Metalcaster . . Do You Plan to be Around in 1980?, Dec, p 40-41. Ruddle, R. W. - Risering . . . Past, Present and Future, April, p 78. Ruf, H. W. - Noise Control at Grede Foundries, Aug, p 64-67.

S

Sanders, C. A. - A Message From Your President, Jan, p 11. Sanders, C. A. - The Use and Value of Iron Oxide, March, p 61-63. Satterfield, R.W. - Sound Sources and Their Characteristics, April, p 92. Schaum, J. H. - All Zircon Shell Operation, May, p 99-101. Schaum, J. H. - American Seating's New Metalcasting Plant Reflects Careful Pre-Planning and Thorough Pre-Training, Aug, p 42-46. Schaum, J. H. - Art Casting in the Forest, Aug, p 47-49. Schaum, J. H. - English Bells Ring Out, Oct, p 46-47. Schaum, J. H. - FEMA Has Good Year, Jan, p 27. Schaum, J. H. - Ford's Michigan Casting Center . . . Progress Report #2, March, p 54-56. Schaum, J. H. - Foremen . . . Masters of the Production Line, Aug, p 50-53. Schaum, J. H. - Metalcasting of the Future . . . circa 1980, July, p 48-49. Schaum, J. H. - Small Foundry . . Leads Ductile Iron Melting Technology, March, p 57-60. Schaum, J. H. - Sturgis Foundry is First . . . to Install New Concept in Automated Mold Handling, Jan, p 51-53. Schaum, J. H. - Superalloy Remelt Ingot Products, Dec, p 32-34. Schaum, J. H. - Tappet Casting . With an English Accent, March, p 72-73. Schaum, J. H. - 38th World Foundry Congress in Germany, Dec, p 35-37. Schaum, J. H. - Train Before You Hire, Sept, p 63. chaum, J. H. - Twenty-fifth Annual SFSA-TRO Conference, Jan, p 25-26. Schleg, F. P. - Manpower . . . Hiring and Retention, March, p 43-44. Sharpe, Victor - Hearing Protection for Foundry Employees, July, p 32. Smith, K. P. - As a Last Resort Read the Instructions, Jan, p 58. Snider, Philip A. - Air Tool Noise Reduction, Aug, p 32-34. Stern, A. C. - Principles of Separation and Collection, Jan, p 59.

W

Wagner, A. J. - AFS Total Environmental Control Conference Praised by Industry and Agencies, Feb, p 83. Wagner, A. J. - Bucyrus-Erie's Contiming Flant Improvement Program, July, p 52-53. Wagner, A. J. - Cupola Emission Control in the Heart of Chicago, Aug, p 58-59. Wagner, A. J. - Electrostatic Precipitator Does Outstanding Job, March, p 74-76. Wagner, A. J. - The Four Day Week,
Oct, p 31.
Wagner, A. J. - Junior Achievement
Group Operates a Metalcasting Business,
July, p 50-51.
Wagner, A. J. - MODERN CASTING'S
Trends Panel Forecasts Business
Levels for the Year Ahead, Jan,
p 64-66.
Wagner, A. J. - Plant Employees on
Salary Proves Effective in Reducing
Absenteeism and Tardiness, Sept,
p 68-70.
Wagner, A. J. - Progress Report . . .

Wagner, A. J. - Progress Report . . .

Expansion of Central Foundry Division's Plant #2 at Defiance, Jan, p 48-50.

Wagner, A. J. - Quality and Service Bring Bright Future to a Small Metalcaster, Jan, p 54-55.

Wagner, A. J. - Sensible Mechanization Broadens Market for Canadian Metalcaster, July, p 46-47.

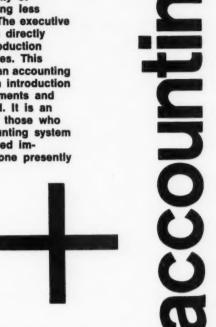
caster, July, p 46-47.
Weber, H. J. - Nature of In-Plant
Problems, Feb, p 62.
Whan, Paul A. - Minimum Investment Pays
Maximum Dividends for Newmam Foundry,
Feb, p 32-35.
Wiedemann, C. R. - A Case History of
Collection Fruirment, May, p 104.

Collection Equipment, May, p 104.
Williams, D. C. - 75 Years Progress . . .
in Foundry Sand Testing, July, p 37-42.
Woodliff, E. E. - 75 Years Progress . . .
in Foundry Sands and Additives,
Sept, p 57-62.

Z

Zayko, R.E., Alcala, R. A. - Two Different Types of Molding Systems Supplied Directly From One Muller, Aug, p 60-61.

The Metalcasting industry is made up primarily of operations employing less than 100 persons. The executive himself finds he is directly responsible for production operations and sales. This manual is not only an accounting course but also an introduction to general requirements and procedures needed. It is an endeavor to guide those who need a cost accounting system or believe they need improvement in the one presently in use.



REQUIREMENTS AND PROCEDURES FOR METALCASTING / ASHLEY C. SINNETT



\$20.00 AFS Members \$40.00 Nonmembers

Fill out and return immediately to:

AMERICAN FOUNDRYMEN'S SOCIETY GOLF AND WOLF ROADS DES PLAINES, ILLINOIS 60016

Please enter my order for copies of the Cost Accounting Manual at \$20.00 for members, \$40.00 for Nonmembers. Remittance enclosed.

☐ Check

☐ Money Order

☐ Currency

Address

City____State___Zip_

RETURN YOUR ORDER WITH REMITTANCE

Add 10% to cover Postage and Registration outside U.S., Canada

modern casting NEW SAFETY SHOPBOOKS

One for every department - and one for every man in every department

7 NEW modern casting safety shopbooks—
at long last enable management to give each
employe the safety information he needs for
his particular metalcasting activity—in a
form he can keep with him for constant guidance on the job. This pertains, furthermore,
at an economically feasible cost. Bulk rates
are available for large quantities.

PREPARED FOR METALCASTERS BY METALCASTERS

You can depend on these modern casting shopbooks to give your employes practical, proved safety guidance. The AFS Safety Committee responsible for the series includes the following Industry leaders:

R. J. Eifler, Belle City Malleable Iron Company. B. Cieslik, Safety Director, General Motors Corporation. C. Gilchrist, Plant Engineer, Oklahoma Steel Castings Company. L. B. Hartin, Safety Engineer, Abex Corporation. R. R. Hoffman, Assistant Safety Manager, Caterpillar Tractor Company. H. M. Huntington, General Supervisor, Safety, International Harvester Manufacturing Research Division. T. A. Kraklow, Safety Director, Deere & Company. I. J. Willardsen, Safety Director, John Deere Waterloo Tractor Works. A. J. Wagner, Foundry Industrial Engineer, Associate Editor, modern casting.

PRICE: AFS Members, \$4.00 per copy / \$25.00 for set of 7 Nonmembers, \$8.00 per copy / \$50.00 for set of 7 Safe Handling of Bulk Materials

Safe Practices in Sand Preparation, Molding and Coremaking

Safe Practices in Melting and Pouring Operations

Safe Practices in Cleaning, Testing and Finishing

Safe Practices in Maintenance, Heating and Illumination

Fire Protection-Prevention, Hazardous Conditions, Environmental Control

Safe Practices in Pattern Shops, Laboratories and Offices

Golf and Wolf Roads Des Plaines IL 60016	E: AFS Members, \$4.00 per copy / \$25.00 for set of 7 Nonmembers, \$8.00 per copy / \$50.00 for set of 7 REMITTANCE ENCLOSED: \$			
Name Please send modern casting safety shopbooks, checked by number, with desired quantities marked, in the boxes at the right	1	2	3	4
Company				
Street	5	6	7	
CityStateZip Code AFS pays posta; e when remittance accompanies USA and Canadian orders.				_

AFS pays postage when remittance accompanies USA and Canadian orders. Other countries must add 10% to cover postage and registration.

BULK RATES AVAILABLE